

**MISSOURI
STATE COUNCIL ON
VOCATIONAL EDUCATION**

**RECOMMENDATIONS
ON THE DELIVERY OF
VOCATIONAL EDUCATION
FOR MISSOURI**

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ON THE DELIVERY OF VOCATIONAL EDUCATION
FOR THE STATE OF MISSOURI**

MISSOURI STATE COUNCIL ON VOCATIONAL EDUCATION

1986-87

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RECOMMENDATIONS

1. All deliverers of vocational education including comprehensive high schools, area vocational schools, community colleges, and four year institutions with one and two year vocational programs should develop agreements that will cause the sharing of facilities and staff.
 - a) The state should be divided into twelve vocational education coordinating regions, each containing a community college district (assuming that a community college district is formed in the Lake of the Ozarks region) and one or more area vocational schools.
 - b) Financial incentives should be provided that will promote voluntary participation.
2. The curricula should be competency based and articulated among all deliverers including comprehensive high schools, area vocational schools, community colleges, and four year institutions with one and/or two year vocational programs.
 - a) A regional articulation council should be created for each of the twelve vocational education coordinating regions.
 - b) The regional articulation council membership should be appointed by the State Board of Education and should be representative of the region's community college, the area vocational schools, comprehensive high schools, four year institutions with one and/or two year vocational programs if one is located within the region, and the Department of Elementary and Secondary Education, Division of Adult and Vocational Education.
 - c) The regional articulation council should be advisory in nature and should be charged with the development and promotion of articulated programs throughout the region.
 - d) The State Board of Education should appoint a statewide articulation council made up of representatives of each of the twelve regional councils.
 - e) The statewide articulation council should be charged with the development and promotion of statewide articulated programs and to develop articulation models, procedures, and sample documents that could be used by the regional articulation councils in carrying out their mission.
3. State and local agreements should be developed that will provide access to collegiate vocational classes at area school sites.
 - a) The area vocational schools and the community college district within each region should be charged with the mission of cooperatively developing post-high school vocational programs, both non-degree and associate degree level programs, to be made available both on the community college campuses and the area vocational school sites.
 - b) State policy should be revised to allow community colleges to offer courses anywhere within its vocational education coordinating region and be eligible for the normal state aid for such courses.
4. Job specific training and training emphasizing skills common to a wide range of jobs should be available to all residents of Missouri.
 - a) Whether enrollment is through a program classified as secondary, postsecondary, adult or customized training, the appropriate mix of skill training should be determined by needs of the individuals targeted and labor market demands.
 - b) Those responsible for policy development, program planning, implementation and evaluation should obtain input from the private sector.
 - c) All long term vocational programs should have incorporated into the curriculum a standardized set of minimum competencies that emphasize general employability skills including but not limited to such items as proper work attitudes, techniques for evaluation and analysis, leadership skills, and problem solving procedures.
 - d) Secondary vocational education should serve two populations; those who will use marketable skills to enter the work force upon graduation from high school and those who wish to prepare to enter a postsecondary vocational program.

- e) As much as practical, programs serving adults should be open entry, open exit.
 - f) There should be increased efforts in expanding vocational education programs at the postsecondary and adult levels throughout the State.
 - g) Policies and practices should be revised to more actively promote and support non-traditional delivery systems in vocational education, such as interactive video disc learning systems, telecommunications, summer use of facilities, and off-site training.
 - h) Vocational education operational policies related to secondary level offerings should be revised to permit greater scheduling flexibility such as one, two, or more class periods of vocational instruction per day, either on a semester or on a school year basis.
5. Guidance services (counseling, career planning and placement) and special needs services (disadvantaged and handicapped) should be an integral and vital part of the articulation of the delivery of vocational education.
 6. Introduction to careers and technology should be provided at grades seven and eight.
 7. Exposure to the world of work and everyday living should be part of the K-6 curriculum.
 8. Secondary school credit should be allowed, either by direct transcription of credit or by the waiver of specific required credits, for the successful completion of secondary level vocational programs which provide substantially the same competencies incorporated into other courses which are required for high school graduation.
 9. State governance, statutes and policies should be tuned to promote voluntary articulation, cooperation, and sharing.
 - a) State agencies (DESE and CBHE) having administrative/supervisory relationships with the comprehensive high schools, area vocational schools, community colleges, and 4 year institutions having one and/or two year vocational programs should jointly establish policies and procedures that would promote and insure a closer relationship among the deliverers of vocational education, particularly with respect to matters such as program approval, regional program planning, articulation, etc.
 10. Prior to July 1, 1987, the Department of Elementary and Secondary Education should develop a plan of implementation for those recommendations adopted as presented and those recommendations adopted with modifications. Such plan should include time lines, available resource allocation, and additional resources needed.

INTRODUCTION

Shortly after establishment and organization of the Missouri State Council on Vocational Education, the belief surfaced among members that they could be most effective if they concentrated their efforts. It was the consensus that concentrating effort would have a greater impact on vocational education in Missouri, and in turn, the economic development of the state and the quality of life of Missourians.

After gathering input from a variety of sources, the Council decided in September of 1985 to study the delivery of vocational education in Missouri. The Council believed it was important to look at what Missouri was like when our present system was established, look at Missouri today, look at where the experts say Missouri is going and then make recommendations as to what type of vocational education delivery system is needed for the Missouri of today and the Missouri of the future. Growing out of the early part of the study was the title "1960-2010 or The Last Twenty-five Years And The Next Twenty-five Years In The Delivery of Vocational Education In The State of Missouri."

The Council has received input from a wide range of individuals representing private business, governmental agencies and educational institutions. Two invitational hearings, one to receive input from business and industry and one to receive input from the educational community, were conducted for the purpose of gathering preliminary information. Following announcement of tentative recommendations, the Missouri Council of Vocational Administrators organized five informational meetings for local school representatives. Prior to making final recommendations, the Council had the benefit of receiving oral testimony from a total of 137 individuals at six hearings. Numerous others supplied comment in written form only.

Input from the last six hearings is summarized as follows:

1. There is strong support for articulation.
2. There is strong support for **both** job specific and skill training common to a wide range of jobs at the secondary level.
3. There is support for job specific training being emphasized at the postsecondary level as long as it is not excluded at the secondary level.
4. There is strong support for adult education and customized training from both the field of education and the private sector.
5. There is support for both introduction to careers and technology at the 7th and 8th grades and exposure to the world of work and everyday living in grades K-6.
6. There is belief that regional coordination and cooperation have a place; however, there is strong opposition to establishment of regional coordinating councils with administrative authority.
7. There is strong support for the Department of Elementary and Secondary Education among local school representatives.

In making recommendations, the Missouri State Council on Vocational Education affirms the following:

1. Missouri has one of the finest systems of vocational education in the United States.
2. The Council has as its singular goal to assist in improving that system.
3. The State Legislature, State Board of Education, and the leadership within the Department of Elementary and Secondary Education is applauded for recognizing the need to improve Missouri's efforts to insure that all high school graduates' possess basic skills - many the same as called for by the private sector representatives from which the Council heard. Missouri now has the Excellence in Education legislation, and the Department of Elementary and Secondary Education is now putting the final touches on a massive undertaking called the Core Competencies and Key Skills Project. The Project has involved the identification of desirable basic skills and the establishment of minimal levels of accomplishment which will be required of students before they can progress through at least four different levels throughout the K-12 educational system. Competency based education, long proven effective in vocational education, is becoming a reality in general education.

4. The Coordinating Board for Higher Education is to be commended for their interest in and support of vocational education.
5. The Council wants economic growth for our state and the best possible lifestyle for Missourians. Leaders must be aggressive in their pursuit of both. Neither can be left to chance.
6. Vocational education has the potential to play an even greater role in economic development than is presently being played.
7. Missouri is a diverse state. Yet due to factors such as mobility and a rapid shrinking of distance attributable to communication, it must be recognized that there are both common needs on a statewide basis as well as regional needs dictated by regional differences.

Perhaps the following paragraph from a report prepared by the Office of Social and Economic Data Analysis, University of Missouri, serves as an appropriate summary to the stage setting for presentation of the Council recommendations:

“Vocational education has played an important part in Missouri’s recent economic history. Vocational training provided many youth who weren’t headed for college with skills necessary to productively enter the labor force; often it has been the bridge between the farm, or urban neighborhoods, and more remunerative economic opportunity. Individuals have benefited from the training, but so too has the state, as those individuals have become productive participants in the state’s economy. But conditions have, and are, changing; if vocational education is to continue to be an important component of Missouri’s economic development, changes in the methods and content of training will continue to be necessary.”

RECOMMENDATIONS, COMMENTS, QUOTES

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- 1.** All deliverers of vocational education including comprehensive high schools, area vocational schools, community colleges, and four year institutions with one and two year vocational programs should develop agreements that will cause the sharing of facilities and staff.

Developing agreements that will cause the sharing of facilities and staff will provide for more efficient utilization of scarce resources. Such agreements will also provide for access to quality vocational education programs in a wide range of communities and educational settings.

"Area vocational schools and community colleges in each region should develop agreements that will cause the sharing of facilities and staff and provide access to college area vocational classes at area school sites."

Missouri Trade and Technical Association (9/86)

"Institutions that deliver vocational education programs should cooperate together yet retain local autonomy."

Missouri Vocational Agriculture Teachers Association (9/86)

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- a)** The State should be divided into twelve vocational education coordinating regions, each containing a community college district (assuming that a community college district is formed in the Lake of the Ozarks region) and one or more area vocational schools.

At the present time, there are 11 community college districts and 59 area vocational-technical schools in Missouri. Three of the 11 community college districts are among the 59 designated area vocational-technical schools.

"It is our position that the designation of regions which may contain community colleges and area vocational schools will enhance the voluntary cooperation to provide student access, prevent unnecessary duplication and increase the role of business and industry that is needed."

Missouri Association of Community and Junior Colleges (9/86)

b) Financial incentives should be provided that will promote voluntary participation.

Many individuals testifying at public hearings indicated the importance of Missouri's tradition of local autonomy. Also expressed during the hearings was the importance of financial incentives to encourage change. A system of financial incentives would reward participating institutions for their effort.

"Competency based and articulated curriculum coupled with a higher degree of voluntary cooperation among the deliverers are two areas which should produce a stronger system of vocational education."

Marketing and Cooperative Education Association (8/86)

2. The curricula should be competency based and articulated among all deliverers including comprehensive high schools, area vocational schools, community colleges, and four year institutions with one and/or two year vocational programs.

Strong support was expressed during the hearings for curricula being competency based and articulated. Missouri is making much progress in development and implementation of competency based curricula. Curricula that is competency based is more easily articulated among all deliverers and will improve efficiency, effectiveness and student access. This recommendation supports a similar recommendation made as a result of the Trends & Priorities study.

"I think there needs to be the urging or the insistence for those "joint partnerships" that we talk about. We know there are specific examples where the community colleges or specific colleges or high schools/vocational schools have formed partnerships. I think those need to be communicated more and there be more insistence that that kind of activity be begun and done on a continuing basis."

Mamie Hughes, Coordinator, Kansas City South Midtown Roadway (3/86)

"We agree with your position that the curriculum should be competency based and that articulation among all deliverers is necessary. To help accomplish this, even greater cooperation among those delivering secondary and post-secondary education will be required."

Missouri Association of Community and Junior Colleges (9/86)

"MVA does, of course, support articulation among the various agencies providing vocational courses."

Missouri Vocational Association (9/86)

a) A regional articulation council should be created for each of the twelve vocational education coordinating regions.

A regional articulation council would allow regional differences to be addressed and would allow regions to specifically deal with regional problems and issues while efficiently utilizing regional resources.

"The concept of deliverers of vocational education within a geographic area working together to serve the needs of students and the community should be accepted. State governance should encourage the development of such regional cooperation efforts."

Marketing and Cooperative Education Association (8/86)

b) The regional articulation council membership should be appointed by the State Board of Education and should be representative of the region's community college, the area vocational schools, comprehensive high schools, four year institutions with one and/or two year vocational programs if one is located within the region, and the Department of Elementary and Secondary Education, Division of Adult and Vocational Education.

Such a council would be representative of all deliverers of vocational education and would allow the Department of Elementary and Secondary Education to provide major leadership in the development of innovative policies and procedures.

"Delivery of vocational education should be coordinated among educational agencies within an area and administered by the Department of Elementary and Secondary Education on a statewide basis."

Missouri Business Education Association (9/86)

c) The regional articulation council should be advisory in nature and should be charged with the development and promotion of articulated programs throughout the region.

A regional articulation council that is advisory in nature will still allow local autonomy for administrative decisions. Such a council could serve as an important catalyst for regional articulation and cooperation in general.

"Regional concepts offer the opportunity to identify resources, provide technical assistance and encourage articulation discussions; however, they must not be administrative in nature."

Missouri Council of Vocational Administrators (8/86)

d) The State Board of Education should appoint a statewide articulation council made up of representatives of each of the twelve regional councils.

A statewide articulation council could deal with issues and problems of a statewide nature. This particular group could serve to efficiently link all regional articulation councils together in those areas of mutual interest and concern.

"MVA does, of course, support articulation among the various agencies providing vocational courses."

Missouri Vocational Association (9/86)

e) The statewide articulation council should be charged with the development and promotion of statewide articulated programs and to develop articulation models, procedures, and sample documents that could be used by the regional articulation councils in carrying out their mission.

Statewide coordination, articulation and standardization of such things as procedures and documents are needed.

"A statewide process for articulation should be completed and implemented among all deliverers."

Missouri Council of Vocational Administrators (8/86)

3. State and local agreements should be developed that will provide access to collegiate vocational classes at area school sites.

Such agreements have the potential to greatly increase accessibility to collegiate vocational education classes to all Missourians.

"Area vocational schools and community colleges in each region should develop agreements that will cause the sharing of facilities and staff and provide access to collegiate vocational classes at area school sites."

Association of Superintendents Who Sponsor Area Vocational Schools (8/86)

In many locations, area schools have facilities and staff that currently complement facilities and staff at community college sites and visa versa. Such cooperative programs would be an efficient way to better serve Missourians.

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- a)** The area vocational schools and the community college district within each region should be charged with the mission of cooperatively developing post-high school vocational programs, both non-degree and associate degree level programs, to be made available both on the community college campuses and the area vocational school sites.

"We are aware of the excellent programs and instructional staff operating in vocational schools throughout the state and firmly believe that vocational schools and community colleges will continue to develop agreements that will enhance the sharing of facilities and staff to the end that the learner may benefit."

Missouri Association of Community and Junior Colleges (9/86)

Policy and statutes could be revised to encourage rather than hinder such activity. Financial funding could be designed in such a way as to promote programs and courses that are in the best interests of both the students enrolled and the economic development needs of the state.

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- b)** State policy should be revised to allow community colleges to offer courses anywhere within its vocational education coordinating region and be eligible for the normal state aid for such courses.

A need for occupational training is documented starting as early as the 9th grade and continuing through adulthood. A number of people will change jobs and, in so doing, will need retraining. As the work force ages, increased need for retraining will exist. Business and industry representatives call for individuals who are well trained, know how to learn, and are flexible.

4. Job specific training and training emphasizing skills common to a wide range of jobs should be available to all residents of Missouri.

"We must recognize that Vocational Education need not have age or sex barriers. Training has been and should continue to be available on the secondary, post-secondary and adult levels."

Shawn M. Arnold, Coordinator, Career Development Center, Springfield, Missouri (5/86)

"We call attention to 3 sectors of the population having special relevance for future vocational training emphases - the very significant movement of women into the labor force, the continued high unemployment and underemployment rates of youth, especially in the cities, and the economic dislocations occurring in rural areas as a result of changes in agriculture, mining, and the possible loss of rural factories."

Vocational Education in Missouri: From the 1960's Into the Next Century by the Office of Social and Economic Data Analysis, University of Missouri (11/85)

a) Whether enrollment is through a program classified as secondary, postsecondary, adult or customized training, the appropriate mix of skill training should be determined by needs of the individuals targeted and labor market demands.

The role of vocational education continues to be one of providing students in need of training with skills that are in demand by business and industry. The appropriate mix of job specific and general skill training will vary considerably depending upon what is needed by the students enrolled and the skill needs or labor needs of the business and industry being served.

"I think maybe the answer lies somewhere in teaching these fundamental personal talents/abilities in the elementary schools and secondary schools. And then perhaps in the postsecondary school, about which I don't know very much, isn't that the place to begin to teach more specifics after you have developed these learning skills, these intellectual skills as compared to manual skills."

Ernest A. Dick, Chairman, Jack Henry Corporation, Kansas City, Missouri (3/86)

"Job-specific training should be delivered at whatever educational level is appropriate to entry-level employment without restriction solely upon age of learner or site of delivery."

Missouri Business Education Association (9/86)

"Frequent reference is being made to the need for generalists instead of narrowly trained specialists; about the need for more entrepreneurship training; the need (and the expectation) for retraining; and on the need for a combination of mental and manual skills. In short one can observe much more frequent reference to the idea of "human capital" development, which usually is intended to mean preparation of people for a prospectively diverse set of economic activities."

Vocational Education in Missouri: From the 1960's Into The Next Century by the Office of Social and Economic Data Analysis, University of Missouri (11/85)

b) Those responsible for policy development, program planning, implementation and evaluation should obtain input from the private sector.

Business and industry representatives indicate strong interest in becoming more involved with vocational education.

"It is increasingly important in our high-tech/high-touch society that public schools and colleges, local businesses, industry representatives, and state and community leaders combine their efforts to ensure the timeliness and marketability of our vocational education programs. We can share some equipment with the vocational schools. We urge vocational programs to invite hospital personnel to serve on advisory committees so they can help schools contemplate demand, develop funding proposals and generate other community resources."

Gloria Metzger, Vice President, Professional Services, Missouri Hospital Association, Jefferson City (3/86)

"Business and industry is ready, willing, and able to advise. . . a three-tiered partnership between education, the student, and industry."

Bob Wolf, President, Temple-Callison Company, Sedalia (3/86)

"I believe that vocational education has to be a joint responsibility between individual, employer, and public schools."

Galen Boyer, President, Galen Boyer Motors, Inc., Independence (3/86)

"In order for vocational education to properly prepare its charges, there needs to be a real commitment from business and corporations and foundations to assist in planning; to devise test or pilot projects; to allow the use of equipment and personnel; to help expose students to the actual work setting and give guidance as to long range planning. The benefits will multiply for companies, future employees, and the community."

Mamie Hughes, Coordinator, Kansas City South Midtown Roadway (3/86)

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"Until and unless we can get business, industry, and labor involved in at least the planning and the evaluation phases, we will never have as efficient and effective vocational education program as we need. The vocational education/training policy will, in the long run, be meaningless if it does not relate to the state's economic development policy. After all, vocational education/training must be, and is, closely entwined with economic development and economic matters within the state. There must be an ongoing collaboration between the education and the economic development groups."

S.L. Temaat, Vice President, Member Services, Farmland Industries, Kansas City (3/86)

"The private sector has been required to grapple with technology-engendered issues such as productivity, technological capability and global competitiveness. Its workers have been challenged by the need for marketable skills - in cognitive, affective and psychomotor domains - in order to maintain their ability to support themselves and contribute to our free-enterprise economy."

Industrial Arts Association of Missouri (9/86)

"It can be expected that successful training programs in the future will be those that achieve a greater degree of collaboration between employers and training facilities at more of a local or regional level."

Vocational Education in Missouri: From the 1960's Into The Next Century by the Office of Social and Economic Data Analysis, University of Missouri (11/85)

c) All long term vocational programs should have incorporated into the curriculum a standardized set of minimum competencies that emphasize general employability skills including but not limited to such items as proper work attitudes, techniques for evaluation and analysis, leadership skills, and problem solving procedures.

Business and industry leaders place high emphasis on the importance of people with general employability skills. This recommendation supports two similar recommendations made as the result of the study, Vocational Education Trends & Priorities.

"What is development of reasoning? How is it you can really quantify that? To me, that is more a matter of attitude. Analyzing problems, decision making, human relations and leadership, career exploration, a lot of these things really relate to these matters of attitude that I think are sorely wanting in education."

Bob Wolf, President, Temple-Callison Company, Sedalia (3/86)

"The schools must turn out complete individuals with the ability to reason, analyze, make decisions, and relate to others in the work place. But they must also turn out individuals with skills to enter the work place and become productive quickly."

Jerry Gregoire, Executive Vice President, Dean Research Corporation, Kansas City (3/86)

"Courses that teach innovative, creative and entrepreneurial skills along with a basic understanding of the analytical processes. I believe that every vocational education graduate should have a specialty that qualifies that person for a specific job. At the same time, however, that individual must also be a generalist. A generalist in the sense of an ability to reason, to analyze problems, to know the process of decision making, to understand human relations and leadership skills and to have developed a strong work ethic."

S.L. Temaat, Vice President, Member Services, Farmland Industries, Kansas City (3/86)

"Mr. Kunsler, a Bureau of Labor Statistics Commissioner, says higher skills, more judgment, more analytical ability are needed for these new jobs that are going to be created within the next 10 years."

Charlie Rich, Senior Tech Support Analyst, DST Systems, Inc., Kansas City (3/86)

"The Building and Construction Trades Crafts perform many jobs with simple and complex tasks. Those tasks require that the worker be able to perform with data by drawing on his or her own knowledge and experience and composing written matter, or to be able to interpret written matter. They must be able to relate with people, whether they are in a supervisory capacity or fellow worker and they must be able to perform with and identify various tools and equipment. They must be able to reason; that is, to draw a good reasonable conclusion in the event that conclusion has not been given them through some source. They must be able to perform math, sometimes with pencil and paper, calculator, or with that little computer they should have stored in their head. They must be able to communicate, whether it be oral, silently, by signals, and written. I firmly believe that these are some of the areas that vocational education should be really concerned about, because most of these skills can be given a student at an early age."

Clinton T. Ramsey, Administrative Manager, Operating Engineers Local 101 Apprenticeship Program, Kansas City (3/86)

"Current program objectives appropriate for secondary vocational education programs must address the issues of communications skills, human relations skills, affective skills

related to work and the work place (Silberman, 1983; Stevens, 1985), and prepare future employees or owners of businesses to work in a dynamic, changing environment (Daniels, Karmos, and Presley, 1985). A Missouri study described student needs in terms of generalizable skills related to mature social relations, communications, and positive work attitudes; entrepreneurship skills which prepare people to operate and/or create business opportunities; and employability skills related to critical thinking, reasoning, and problem solving which prepare persons to be effective in the work force (DESE, 1984.)"

Mission of Vocational Education In Missouri Secondary Schools by Bob R. Stewart, College of Education, University of Missouri-Columbia (5/86)

d) Secondary vocational education should serve two populations; those who will use marketable skills to enter the work force upon graduation from high school and those who wish to prepare to enter a postsecondary vocational program.

Students will continue to enter the labor force upon graduation from high school and some will drop out prior to graduation. A need exists to make their transition from school to work as smooth as possible. As the training needs for some jobs increase and as some secondary students find less time to devote to vocational education, a need arises for postsecondary vocational training. In this case, secondary vocational education will need to provide students the necessary background to enroll in such programs.

"For over two hundred years, the philosophical debate has raged as to whether we should give our youth an education for "use" or an education of "academics." We believe that secondary education must provide for both in a society that stresses the education of all youth."

Association of Superintendents Who Sponsor Area Vocational Schools (8/86)

"Students at all levels should be provided with options to enter into the labor market, with saleable skills, immediately upon graduation from high school or to continue their education."

Missouri Council of Vocational Administrators (8/86)

"While job specific training should be emphasized at the postsecondary level, secondary students who are not seeking advanced educational degrees upon graduation from high school need preparation for specific occupations."

Marketing and Cooperative Education Association (8/86)

"Skill specific training should also be available at the secondary level which gives students a choice of further related education or entry into the labor market when leaving the secondary level."

Missouri Home Economics Teachers Association (9/86)

"Much evidence and many statements were found which indicated that the goals and expectations for vocational education at the secondary level have changed during the past five years and are sharply in contrast to the early views of vocational education as

job specific skills training (Copa, 1985). While many completers of secondary vocational education programs enter the work force, a recent study (Campbell, Gardner, Seitz, 1982:19) found that for students "who follow a secondary vocational curriculum with meaningful continuity, specialization, and concentration, between one-half and three-fourths are enrolled or graduated from a postsecondary program." Others suggested that students would receive more specific job related training at the postsecondary level (Nunez and Russell, 1982; Field, 1984). Programs should accommodate those students that enter the work force as well as those that elect to continue their education at the postsecondary level."

Mission of Vocational Education in Missouri Secondary Schools by Bob R. Stewart, College of Education, University of Missouri-Columbia (5/86)

e) As much as practical, programs serving adults should be open entry, open exit.

As more adults seek training and retraining, it becomes more important that vocational education be responsive to their needs. The worst possible scenario would be to have programs with entry limited to one or two times per year at most.

"We find many more are put on hold, or simply turn away defeated because of discouraging restrictions and complications. Programs that open only once or twice a year, limited slots. . ."

Shawn M. Arnold, Coordinator, Career Development Center, Springfield (5/86)

f) There should be increased efforts in expanding vocational education programs at the postsecondary and adult levels throughout the State.

Postsecondary and adult vocational education needs provide the growth side of vocational education. Present facilities, staff, and resources are more than are currently needed to serve anticipated secondary student numbers. On the other hand, large numbers of post high and adults are in need of training and retraining.

"Another important, and potentially larger, role for vocational education is continuing education for individuals already in the workforce—updating skills, cross-training employees for emerging and related skills within an industry, and retraining workers whose job skills have become obsolete."

Gloria Metzger, Vice President, Professional Services, Missouri Hospital Association, Jefferson City (3/86)

"The mission of vocational education/training in Missouri should be the following: The vocational education/training program in the State of Missouri shall provide to the people of this State an educational alternative that meets these three criteria. 1) Has the capability of retraining displaced workers to allow them to function in new jobs and new industries. 2) Provides an alternative to the young adult not financially able, or not interested in making a four-year degree commitment. 3) Provide a program that is closely integrated with industry and businesses to provide those workers with opportunities to stay appropriately updated in their work."

S.L. Tema, Vice President, Member Services, Farmland Industries, Kansas City (3/86)

"Anyone who stops his/her education after high school is committing occupational suicide. An engineer coming out of school today 25 years old will be retrained 8 times in a 40 year career. That's the projection."

Charlie Rich, Senior Tech Support Analyst, DST Systems, Inc., Kansas City (3/86)

"---the demand for training and retraining of adults is immediate:.... Until recently, vocational education has been primarily oriented toward young people in the 16-24 age range. As we have suggested, however, the need for employment training will likely increase among adults on up to age fifty or older."

Vocational Education In Missouri: From The 1960's Into The Next Century by the Office of Social and Economic Data Analysis, University of Missouri (11/85)

"Adult and postsecondary vocational education can make an enormous difference in the lives of disadvantaged women."

Nancy Wegge, Director, Career Connection Regional Center, Flat River (5/86)

g) Policies and practices should be revised to more actively promote and support non-traditional delivery systems in vocational education, such as interactive video disc learning systems, telecommunications, summer use of facilities, and off-site training.

Although outcomes in this area are unpredictable, major effort in research and development could pay off handsomely in influencing effectiveness and student access. This recommendation supports a similar recommendation made as the result of the study, Vocational Education Trends & Priorities.

"The technical capability now exists, and clearly will be refined, to make it more economically feasible to transport information than to transport people. We have not even begun to anticipate the potential changes that capability will generate for education, health care delivery and other types of public and private services.... Regardless of the specifics, it can be expected that the overall pattern of decentralization, technological development, service employment, job creation, etc. will continue to encourage experimentation with the methods and conditions of offering vocational training."

Vocational Education In Missouri: From The 1960's Into The Next Century by the Office of Social and Economic Data Analysis, University of Missouri (11/86)

h) Vocational education operational policies related to secondary level offerings should be revised to permit greater scheduling flexibility such as one, two, or more class periods of vocational instruction per day, either on a semester or on a school year basis.

Flexibility is not without problems and will not be without cost. Lack of flexibility may cost society more as the result of creating barriers that prohibit some students from enrolling in much needed vocational education programs. This recommendation supports a similar recommendation made as the result of the study, Vocational Education Trends & Priorities.

5. Guidance services (counseling, career planning and placement) and special needs services (disadvantaged and handicapped) should be an integral and vital part of the articulation of the delivery of vocational education.

Students of all ages need support services. Occupational training alone may not be enough to assure an individual's ability to obtain and maintain meaningful employment. Both the 16 year old and the 30 year old may have home pressures and/or responsibilities that must be coped with before they can be successful students and employees.

"Counselors should make equal efforts related to community linkages for all socio-economic classes of students."

Missouri School Counselor Association (5/86)

"Needs of the targeted groups include: outreach, recruitment, orientation, career counseling, vocational assessment, training referral, skills training, job development, placement assistance, and followup. Individualized vocational education plans jointly developed by the regional center coordinator and the adult student provide direction and a long term goal."

Nancy Wegge, Director, Career Connection Regional Center, Flat River (5/86)

6. Introduction to careers and technology should be provided at grades seven and eight.

A meaningful career is an important factor in the well-being of most, if not all, able individuals. Technology affects all of us in most facets of our lives. Junior high school age is a formative time when students seriously consider career preparation and coping with the world around them. Traditionally, home economics and industrial arts have served this age group by providing practical arts courses. Both professions have worked on innovations that will improve effectiveness and be more in tune with student needs. Interaction and joint exploration between these two groups and other providers of practical arts courses will result in an offering that will better meet the needs of all students rather than a limited few.

"I think that it is very important for some of our high school students that they are able to look into a couple of areas and then decide which one they would like to settle in."

Gloria Metzger, Vice President, Professional Services, Missouri Hospital Association, Jefferson City (3/86)

"MCVA agrees that such exploration can be accomplished at that level. It must be emphasized, however, that not all persons at this level are enrolled in such courses nor will they be without much curriculum revisions at the 7-8 level."

Missouri Council of Vocational Administrators (8/86)

"MoHETA recommends that this offering be required for all boys and girls."

Missouri Home Economics Teachers Association (9/86)

MoSAHOE applauds this action and again suggests that perhaps this should be a mandatory part of the curriculum."

Missouri State Association of Health Occupation Educators (9/86)

"Career development work by Super (1985) and others support the idea that students need help in terms of career exploration prior to entering high school."

Mission of Vocational Education in Missouri Secondary Schools by Bob R. Stewart, College of Education,
University of Missouri-Columbia (5/86)

7. Exposure to the world of work and everyday living should be part of the K-6 curriculum.

Research and practice indicate efforts in early childhood development pay dividends toward the success of a student in school. By the same token, attitudes about the world of work can be formulated long before specific occupational training begins. A student who understands the relationship between work and education may be more motivated to acquire basic skills and may be less apt to drop out of school mentally and/or physically. Career education materials have been developed and are being effectively used in selected locations. In other locations, a renewal of effort is needed. Students coming out of school with a healthy attitude toward work will make Missouri more competitive in the world labor market.

"I think that this program needs to start in the elementary schools and build up into the secondary schools."

Ernest A. Dick, Chairman, Jack Henry Corporation, Kansas City (3/86)

"It has always struck me as curious that we propose to take kids out of the real world and put them in a classroom to teach them about the real world."

Tracey Leiweke, President, Leiweke & Company, Kansas City (3/86)

"All students should be taught the values, virtues and meaning of the world of work. The earlier this process begins, the better."

Missouri Vocational Association (9/86)

"MCVA believes that exposure to the world of work and everyday living, as well as an expanded career education program, should be a part of the K-6 curriculum."

Missouri Council of Vocational Administrators (8/86)

"Career education experiences for students will enhance the formulation of positive work attitudes and an appreciation of workers."

Missouri Home Economics Teachers Association (9/86)

8. Secondary school credit should be allowed, either by direct transcription of credit or by the waiver of specific required credits, for the successful completion of secondary level vocational programs which provide substantially the same competencies incorporated into other courses which are required for high school graduation.

A large number of individuals testifying at hearings cited the credit issue to be of paramount importance. The development of vocational instructional management systems (VIMS) in vocational education and core competencies and key skills in general education will facilitate this process. This recommendation supports a similar recommendation made as the result of the study, Vocational Education Trends & Priorities.

"Currently, we are moving more deeply into Vocational Instructional Management Systems (VIMS). This competency based system has been described as "the wave of the future."

Missouri Vocational Association (9/86)

"The Missouri Home Economics Teachers Association recommends the Council work with DESE to identify vocational classes which could fulfill certain academic requirements for graduation."

Missouri Home Economics Teachers Association (9/86)

9. State governance, statutes and policies should be tuned to promote voluntary articulation, cooperation, and sharing.

A number of state agencies have an interest in job development and training. In light of scarce resources and fierce economic competition from other states and nations, a cooperative approach that is synergistic is a must.

"It is agreed that State governance should tie all deliverers of vocational education (public and private sectors) together."

Missouri Council of Vocational Administrators (8/86)

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- a)** State agencies (DESE and CBHE) having administrative/supervisory relationships with the comprehensive high schools, area vocational schools, community colleges, and 4 year institutions having one and/or two year vocational programs should jointly establish policies and procedures that would promote and insure a closer relationship among the deliverers of vocational education, particularly with respect to matters such as program approval, regional program planning, articulation, etc.

"It is our view that many of the problems in the delivery of vocational education could be resolved with a master plan and a set of regulations that govern the relationship and expectations of all those who deliver vocational education."

Association of Superintendents Who Sponsor Area Vocational Schools (8/86)

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- 10.** Prior to July 1, 1987, the Department of Elementary and Secondary Education should develop a plan of implementation for those recommendations adopted as presented and those recommendations adopted with modifications. Such plan should include time lines, available resource allocation, and additional resources needed.

Under the provisions of the Perkins Act, the Department of Elementary and Secondary Education is designated the sole state agency responsible for vocational education in Missouri. Since ultimate responsibility rests with this agency, it is logical that they be responsible for development of the plan to implement the recommendations accepted.

PROJECTED OUTCOMES

1. More vocational program flexibility.
2. All long term vocational programs having a general employability skills component (work attitudes, etc.)
3. Expanded competency based programming.
4. A great increase in articulated programs.
5. The creation of 12 vocational education coordinating regions making it possible to offer both non-degree and associate degree level vocational programs throughout all regions of the State.
6. The creation of a statewide network of articulation councils charged with the promotion of articulation, cooperative programming, and vocational education in general.
7. An increase in secondary and postsecondary vocational education.
8. A system which provides the possibility for the offering of associate degree level vocational programs to all citizens of the State, not just those residing in the community college districts.
9. Increased efficiency in utilization of scarce resources.
10. Prevention of unnecessary duplication.
11. A delivery system with primary emphasis on the learner and secondary emphasis on the institution.
12. Opportunity for individuals to both enter and reenter a systematic occupational program starting as young as the 9th grade and going through adulthood.
13. An opportunity for employers to select individuals who are trained and have been exposed to the importance of the world of work from kindergarten on.
14. A system that clearly demonstrates responsiveness to the economic development needs of the State.
15. Enhancement of appropriate decision making choices by students through increased self-awareness, knowledge of the world of work, and career opportunities.

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